

REMARKS

Upon entry of this amendment, claims 3-12 are all the claims pending in the application. By this Amendment, Applicant amends claim 8 to further clarify a feature of the invention.

I. Claim Rejections under 35 U.S.C. § 102(e)

Claims 3, 5-7, 9-12 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,519,254 B1 to Chuah et al. (hereinafter “Chuah”). Applicant respectfully traverses this rejection and respectfully requests the Examiner to reconsider this rejection in view of the comments, which follow.

To be an “anticipation” rejection under 35 U.S.C. § 102, the reference must teach every element and recitation of the Applicant’s claims. Rejections under 35 U.S.C. § 102 are proper only when the claimed subject matter is identically disclosed or described in the prior art. Thus, the reference must clearly and unequivocally disclose every element and recitation of the claimed invention.

To begin, independent claim 3, among a number of unique features not taught by the prior art, recites: *service level requesting means for requesting a service level for communicating data over said second communication network and a service level receiving means for indicating a proposed service level that said DRE can provide for communicating said data of said DTE*. The Examiner asserts that claim 3 is directed to a data transmitting element and is anticipated by Chuah.

The Examiner asserts that Chuah's sender capable of sending RSVP messages and receiving the RSVP RESV messages is equivalent to data transmitting element with a service level requesting means and service level proposal receiving means, as set forth in claim 3 (see pages 2-3 of the Office Action). Applicant respectfully disagrees with the Examiner. Applicant has carefully studied Chuah's discussion of RSVP based sender sending RSVP and receiving RSVP RESV from the receiver, which is not similar to service level requesting means and service level proposal receiving means as set forth in claim 3.

Chuah discloses an enhanced, receiver-driven RSVP based tunneling protocol. In particular, Chuah discloses a system, which has a sender connected to a tunnel source point (TSP) via T1/E1 lines, a tunnel destination point (TDP) connected to a receiver via T1/E1 lines. The TSP transmits data to the TDP over the Internet using RSVP (tunneling) protocol (col. 2, lines 8 to 18 and col. 4, lines 13 to 28).

The sender sends a RSVP path message, which specifies the characteristics of the sender (Sender Tspec) and parameters subject to the modification by the routers along the path to the receiver (ADSPEC). TSP receives this message, encapsulates it and transmits it to the TDP. The TDP decapsulates the message, updates the ADSPEC and forwards the message to the receiver. Chuah's receiver computes the parameters needed for this session and sends back a RSVP RESV message. When TDP receives this RSVP RESV message, the TDP allocates tunnels for this session and encapsulates the message including the number of tunnels allocated and sends it to the TSP. The TSP decapsulates it and uses the assigned number of tunnels to

forward messages between TDP and TSP, and forwards the remaining portion of the message upstream to a sender (Figs. 3-5; col. 3, lines 1 to 22 and col. 4, line 50 to col. 5, line 23).

To sum up, each receiver/sender is capable of sending RSVP PATH message, which contains the parameters of the receiver/sender and parameters that may be modified by TSP or TDP (col. 3, lines 2 to 20). Moreover, each receiver/sender in response to RSVP PATH message, can compute amount of bandwidth needed and send a reservation message (RSVP RESV) to request the required bandwidth (col. 4, line 60 to col. 5, line 10). Chuah's TSP/TDP may attach to the RSVP RESV message an appropriate RSVP tunnel for this session and encapsulate the message and send it to another TSP/TDP, which decapsulates the message and uses this appropriate RSVP tunnel (Figs. 3-5 and 11; col. 5, lines 1 to 23). In short, Chuah teaches integrating allocations of bandwidth: one occurring between the sender and receiver via TSP and TDP (conventional RSVP protocol) and one occurring between TSP and TDP (Chuah's enhancement to RSVP protocol).

However, Chuah fails to teach or suggest a data transmitting element as set forth in claim 3. In particular, Chuah fails to teach or suggest service level proposal receiving means, which receives a proposal of what the tunnel source point (TSP) can handle. In addition, Chuah fails to teach or suggest service level requesting means for requesting a service level.

As explained above, the sender sends its specifications/parameters (how much bandwidth it is capable of handling) and in return, receives allocated bandwidth. This allocated bandwidth is provided based on the receiver, which determines how much bandwidth to allocate to this session. This notification of the allocated bandwidth to the sender is not an indication of the

service level that the STP can provide but rather an indication of what the receiver may handle. Chuah's system is a receiver-oriented paradigm, where the allocation of service is based on the receiver. In addition, the sender of Chuah just sends its parameters to the receiver, it does not send a request for a bandwidth. The request for a bandwidth allocation is made by the receiver.

In short, as is visible from Chuah's teachings, no negotiation is being performed. The sender sends its parameters and receives a notification of the allocated bandwidth set by the receiver. No negotiation is being performed. In addition, the bandwidth allocation is controlled based on the receiver and based on the communication with the receiver and not between the sender and the source tunnel point.

To meet the recitation of the service level proposal means as set forth in claim 3, the Examiner seems to allege that the TSP is a data transmitting element and that the TDP is a data receiving element (see page 3 of the Office Action). Moreover, the Examiner further alleges that the network between the sender and the TSP is a second network as set forth in claim 3 (see page 2 of the Office Action).

However, if as alleged by the Examiner, the TDP is the data receiving element and TSP is data transmitting element and the network between these two points is a first network as set forth in claim 3, then the TSP receives the tunnel assignment to be used between the TSP and the TDP, and not for communication over the other network. Tunneling is performed between the TSP and the TDP only (see col. 3, lines 23 to 25). Chuah teaches that a "TUNNEL_" prefix is added to the RSVP messages relating to the tunnel in order to distinguish the RSVP messages for the tunnel from those for the end-to-end flows (col. 4, lines 38 to 43). Moreover, the TSP, as

acknowledges by the Examiner, does not generate any messages but just encapsulates/decapsulates a received message (see page 3 of the Office Action). Therefore, the TSP does not have a service level requesting means, as set forth in claim 3.

Therefore, *a service level requesting means and a service level proposal means* as set forth in claim 3 is not suggested or taught by Chuah, which lacks a sender or the TSP requesting a level of service. The sender of Chuah only forwards the parameters, where the determination is to be made by the receiver and it is the receiver that requests a reservation. The TSP of Chuah, on the other hand, forwards messages and does not generate a message but only encapsulates it. In addition, the TSP of Chuah can admit or deny requests from the TDP. However, these requests are only related to a network between the TSP and the TDP and not to another network.

Moreover, Chuah lacks a service level proposal means indicating proposed service that the edge node can provide for communication over the second network. The sender only receives parameters from the receiver and not the TSP, and also these parameters provide allocated bandwidth to be used (none negotiable for the sender). Finally, the parameters provided to the sender are not for communicating data between the TSP and the TDP, whereas the TSP only receives a proposed tunnel from the TDP, (which it can deny or admit) for communicating between the TDP and the TSP and not over another network.

For at least these exemplary reasons, Applicant respectfully submits that independent claim 3 is patentably distinguishable (and is not obvious) over Chuah. Applicant therefore

respectfully requests the Examiner to reconsider and to withdraw this rejection of independent claim 3.

Next, with respect to the independent claim 5, which among a number of unique features, recites: *service level request reception means for receiving an IPCP message from the DTE indicating request service level and service level negotiating and proposing means for determining the service level for communicating the data of the DTE over the second network.*

The Examiner asserts that claim 5 is directed to a data receiving element and is anticipated by Chuah. The Examiner asserts that Chuah's tunnel destination point receives a request from the tunnel source point and negotiates a tunnel for a second network, as set forth in claim 5 (see pages 4-5 of the Office Action). Applicant respectfully disagrees with the Examiner. Applicant has carefully studied Chuah's discussion of the TDP and the TSP, which are not similar to DRE and DTE, as set forth in claim 5.

The Examiner appears to equate the tunnel source point with the data transmitting element and the tunnel destination point with the data receiving element (see pages 3 to 4 of the Office Action). The Examiner further alleges that the TDP receives this RSVP RESV message (see page 3 of the Office Action), which the Examiner appears to equate with a service level request reception means, as set forth in claim 5. However, it is respectfully pointed out that the TDP receives an RSVP RESV message from the receiver and not from the TSP. As a result, if, as alleged by the Examiner, the TSP is the DTE, as set forth in claim 5, then clearly the TDP fails to teach or suggest the receiving means for receiving service level requests from the TSP.

Moreover, Chuah teaches that the tunnel assignments is for communication between the TSP and the TDP, as such, the TDP does not assign parameters/tunnels for communicating over a network different from the network between the TSP and the TDP, as set forth in claim 5. In short, Chuah fails to teach or suggest having a tunnel destination point receiving requests from the TSP for setting up communication over another network. For at least these exemplary reasons, Applicant respectfully submits that independent claim 5 is patentably distinguishable (and is not obvious) over Chuah. Applicant therefore respectfully requests the Examiner to reconsider and withdraw this rejection of independent claim 5.

With respect to independent claim 6, among a number of unique features not taught by the prior art reference cited by the Examiner, it recites service level negotiating and proposing means, similar to the service level negotiating and proposing means argued above with respect to claim 5. Since claim 6 contains features that are similar to the features argued above with respect to claim 5, those arguments are respectfully submitted to apply with equal force here. For at least substantially the same exemplary reasons, therefore, Applicant respectfully requests the Examiner to withdraw this rejection of independent claim 6.

With respect to the independent claim 7, among a number of unique features not taught by the prior art reference cited by the Examiner, it recites a service level requesting sub-module and a service level proposal receiving sub-module, similar to a service level requesting means and a service level proposal receiving means argued above with respect to claim 3. Since claim 7 contains features that are similar to the features argued above with respect to claim 3, those arguments are respectfully submitted to apply with equal force here. For at least

substantially the same exemplary reasons, therefore, Applicant respectfully requests the Examiner to withdraw this rejection of independent claim 7.

With respect to the independent claims 9-11, among a number of unique features not taught by the prior art reference cited by the Examiner, it recites service level negotiating and proposing means, similar to the service level negotiating and proposing means argued above with respect to claim 5. Since claims 9-11 contain features that are similar to the features argued above with respect to claim 5, those arguments are respectfully submitted to apply with equal force here. For at least substantially the same exemplary reasons, therefore, Applicant respectfully requests the Examiner to withdraw this rejection of independent claims 9-11. Claim 12 is patentable at least by virtue of its dependency on claim 11.

II. Claim Rejections under 35 U.S.C. § 103(a)

Claims 4 and 8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Chuah. Applicant respectfully traverses this rejection on the following basis. Applicant respectfully traverses this rejection with respect to the dependent upon claim 3, claim 4 and with respect to the dependent upon claim 7, claim 8. Applicant has already demonstrated that Chuah does not meet all the requirements or render obvious independent claims 3 and 7. Therefore, claims 4 and 8 are patentable at least by virtue of their dependency.

Moreover, the Examiner alleges that Chuah teaches all the functionality performed in these dependent claims but that Chuah fails to explicitly disclose the structure of the system as set forth in claims 4 and 8. Next, the Examiner alleges that in order to perform the functions, the system disclosed by Chuah must have a plurality of elements, which are interconnected to

implement the functions of the system (see page 5 of the Office Action). However, Applicant respectfully points out that the Examiner has not indicated how is the particular arrangement of elements as set forth in claims 4 and 8 is obvious. There could be other elements or other interconnections to perform the same functionality. In addition, Applicant respectfully submits that the particular arrangement as set forth in claims 4 and 8 is not obvious in view of Chuah, which fails to teach or suggest any arrangement of elements.

Moreover, Applicant respectfully points out that claim 8 recites an additional feature of renegotiating the service level. In particular, as set forth in claim 8, the renegotiating sub-module checks whether the received level is satisfactory and if not, instructs the requesting sub-module to send another request with a different service level proposal. Chuah's sender is incapable of re-negotiating level of service. In other words, it uses the parameters received and there is no teaching or suggestion that Chuah's sender can check the received allocated bandwidth and if unsatisfactory, send another message. In fact, Chuah's sender only sends its own parameters and as explained above, Chuah's sender does not even send a request. Chuah's TSP only admits or denies parameters. If the suggested parameters are denied, then Chuah's TDP tries another parameters (tunnel allocation). In other words, Chuah's TSP also does not check the received tunnel allocation and if unsatisfactory instructs for an another request. The TSP simply denies or admits and the TDP generates requests.

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Therefore, for at least these additional exemplary reasons, Applicant respectfully submits that claims 4 and 8 which depend upon claims 3 and 7, respectively, are patentable over Chuah. Therefore, Applicant respectfully requests the Examiner to withdraw this rejection.

III. Conclusion and request for telephone interview.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly invited to contact the undersigned attorney at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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